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JUNIOR COLLEGE JOURNAL

AMERICAN ASSOCIATION
OF JUNIOR COLLEGES

NOVEMBER 1946 • VOL. 21

JUNIOR COLLEGE JOURNAL

OFFICIAL ORGAN OF THE AMERICAN ASSOCIATION OF JUNIOR COLLEGES



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JUNIOR COLLEGE JOURNAL is published monthly from September to May, inclusive. Subscription: \$3.00 a year, 50 cents a copy. Group subscriptions, to faculty of institutions which are members of the American Association of Junior Colleges: \$1.50 a year. Communications regarding editorial matters should be addressed to Leonard V. Koos, Department of Education, University of Chicago, 5805 Kimball Avenue, Chicago 37, Illinois. Correspondence regarding advertisements and subscriptions should be addressed to Jesse P. Bogue, executive secretary of the American Association of Junior Colleges, 1201 Nineteenth Street, N.W., Washington 6, D.C. Entered as second-class matter November 22, 1928, at the Post Office at Washington, D.C., under the Act of March 3, 1879. Additional entry at Lancaster, Pennsylvania, July 27, 1944.

[Printed in U. S. A.]

JUNIOR COLLEGE JOURNAL

Volume XVII

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Research on a Wide Front

EDITORIAL

EARLIER autumn issues of this periodical made clear that the American Association of Junior Colleges is officially committed to an extensive program of research. The September *Junior College Journal* carried the report of the Committee on the Co-ordination of Research, in which were presented the "principles" that govern the manner of co-ordination. The same issue presented also the reports of the five Research and Service Committees of the Association, whose activities are controlled by these principles. The October number included, in the article, "Research Preferred for Junior Colleges," the outcomes of a pool of administrators which the several committees had before them while deliberating over the scope and kinds of research that should be conducted and encouraged.

The very fact of commitment by an educational organization like the American Association of Junior Colleges to a program of research is so significant that it seems desirable, even at the risk of partial

repetition, to take a second glance at some of its elements.

1. The Committee on Legislation, for the time being stressing the service aspect of its responsibilities more than research, is co-operating with state and regional associations in considering laws at the state level relating to junior colleges. It is also giving encouragement to research in this area by standing ready to unite efforts with individuals and groups at work on legislative research projects.

2. The Committee on Administrative Problems has given approval to a project to survey present administrative practices for improving instruction, with the purpose of increasing the effectiveness of these practices, and to institute a study of building and equipment standards for junior colleges. As a service project, this committee has already prepared for distribution to administrators a formulation of a desirable philosophy of junior-college public relations and a suggested calendar of public-relations activities.

3. The Committee on Teacher Preparation is planning an inquiry into programs, now in operation in universities and colleges throughout the country, for the preparation of instructors for junior colleges, a synthesis of research and reports previously completed relating to qualifications of junior-college teachers, and a study of current practices of in-service preparation.

4. The Committee on Student Personnel Problems is sponsoring investigations of junior-college placement and follow-up practices, of psychological factors in motivating students at the junior-college level, and of the status of students at entrance to junior colleges. It is also interested in an investigation of relationships between high-school and junior-college student personnel programs. A limited study of the counseling of veterans has already been completed, the findings of which are reported in this issue of the *Journal* by Dr. John L. Lounsbury.

5. The area assigned to the Committee on Curriculum and Adult Education is so large that this committee was obliged to be even more ambitious in the scope of its planning than were the other committees. Space does not permit listing all the fifteen projects which this committee is interested in promoting, but the reader will find them in tabular array in this committee's report in our September issue.

One may note even in this incom-

plete portrayal of the concerns of the five committees an impressive span of inquiry. Quite logically, since the five committees represent the main aspects of junior-college education, this span approaches comprehensiveness of junior-college interests. It is broad in a second sense, in that it will need to utilize a wide variety of procedures, such as measurement, documentary analysis, controlled experimentation, synthesis of findings of previous inquiries, studies of status, and even simple expositions of current innovations.

The program will be on a wide front in still a third sense, in that, at best, only part of it can and will be carried on in the Office of Research of the Association at the University of Chicago and that much of it must be done elsewhere. At this writing a list of the studies is being prepared for distribution to interested persons. Copies of this list of studies will be sent upon request to teachers and administrators in junior colleges who would like to examine it with a view to co-operating in the research program.

It is heartening to contemplate the rate of progress of the junior college during this most dynamic period of its development if it can be accelerated by a well co-ordinated program of research, broad in its concerns, diverse in its methods of attack, and shared in by many individuals and institutions.

LEONARD V. KOOS

A Technique for Developing Co-operative Responsibility

ORPHA STOCKARD

A Plan of Counseling by Seniors

THROUGH several years of development, an organized system of counseling by Seniors has become an extremely useful personnel technique at Cottey College, a junior college for women. It is valuable to three groups: the counselors, the counselees, and the administration of the College. The present plan has proved strongly conducive to co-operative effort on the part of everybody concerned because it offers opportunities for all three groups to work together and to learn together through varied activities and experiences rather than through formal instructional relationships alone.

Careful criteria have been set up for the selection of counselors by the students and faculty. To be a counselor, a girl must measure up to definite standards. She must be well above average academically, must have proved her leadership

ability, must have good judgment, and must use good taste in dress and behavior. She must, in other words, represent the ethical, academic, and social standards of the college. To be chosen as a counselor is considered a real honor. The students understand that it is the counselors who introduce the institution to the new students and thus set the standards of behavior for the newcomers. Each counselor is conscious of her responsibility and influence.

Under such a positive plan the new students receive their initial instructions and advice from this selected group of counselors rather than from less desirable students who always seem to have more time to spare for sociability than do the better students but who, unfortunately, do not have the same quality of judgment. The induction of the new students into college life with stress on the approved standards is thus facilitated for the administration. In personal matters and in daily dormitory living, student instruction and leadership are often more effective than any fac-

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ulty supervision and teaching can be. This is especially true when the student leaders are greatly respected for their obvious success in the college circle.

While the Senior counseling system could be adapted to any type of physical plant, it is particularly well suited to the dormitories at Cottey College. The dormitories are divided into suites, each of which includes a living room surrounded by bedrooms for ten students, a utility room, and a bathroom. The utility room is furnished with dishes and with the electrical appliances necessary for preparing candy, popcorn, hot chocolate, coffee, and other refreshments. The living room of the suite is comfortably furnished for the group of ten. This living arrangement builds group spirit by encouraging the girls in the suite to plan and carry through meetings, "feeds," discussions, and many social activities. Boxes from home are shared, birthdays of the suite members are observed, holidays are celebrated. A Senior counselor is assigned to each suite. It is her responsibility to promote, advise, suggest, and help the group as a whole, as well as the individuals in the group. Dealing with an organized unit reinforces the effect of her labors and makes her contact with the individual easier and more natural.

Selecting and Preparing the Counselors

The Senior counselor is chosen by careful consideration on the part of both students and faculty. A list of candidates is submitted by the Student Council to the faculty for suggestions and additions. A joint committee, composed of representatives from the personnel administration and the students, then makes the final selection. The choice is completed six weeks before the end of the second semester so that training may be begun early.

After the Senior counselors are chosen, they hold regular weekly dinner meetings with the elected members of the next year's Student Council, faculty dormitory directors, and the personnel dean. At these meetings the general policies of the college, standards of social conduct, purposes of dormitory life, and academic aims are reviewed.

Over a period of years a workable selection of books on college life has been collected in the library. At the first meeting of the future counselors, definite assignments in these books are made for all to read before the next meeting, and a few special reports are allocated to individual students. The readings range from *Your Best Foot Forward*¹ and

¹ Dorothy Constance Stratton and Helen B. Schleman, *Your Best Foot Forward*. New York: Whittlesey House, McGraw-Hill Book Co., Inc., 1940.

The Woman You Want To Be² to On Being a Real Person,³ Technique for Living,⁴ and How To Make Good in College.⁵

After the general discussion on such reading, consideration is given to specific standards for the incoming Cottey class. The activities of the past year are evaluated from the point of view of the students, weaknesses in the counselors and the program of the year are noted, and improvements are suggested and discussed. In some cases recommendations from the group are made through the proper channels to the person or persons responsible for the area where the change is desired. For instance, if the counselors feel that they would have benefited from having their evening orientation classes start earlier in the year, the recommendation is made to the dean, who has charge of the classes in orientation. The same procedure may be carried out in the case of activities under the direction of the director of dormitories or those directed by the Student Council.

² Margery Wilson, *The Woman You Want To Be: Margery Wilson's Complete Book of Charm*. Philadelphia: J. B. Lippincott Co., 1942.

³ Harry Emerson Fosdick, *On Being a Real Person*. New York: Harper & Bros., 1943.

⁴ James H. Smith and Natacha Rambova, *Technique for Living*. New York: Essential Books (270 Madison Avenue), 1944.

⁵ Randall B. Hamrick, *How To Make Good in College*. New York: Association Press, 1940.

Next in these Senior counselor meetings, the plans for the activities of the following year are developed. A schedule of events for the opening month is made. The activities are planned to assist the new students in their personal, social, and academic adjustments to college life. The program, as set up by the counselors and approved by the faculty advisers, is next presented to the next year's Senior class as a whole in an after-dinner meeting where informal discussion is possible. Since each returning student is certain to have some part in the orientation of the incoming class, it is important that all understand the policies and plans. In this informal discussion, standards are again stressed. This review for all the future Seniors focuses attention upon such matters.

Finally, the schedule of activities is mimeographed and left at the college for use in the following autumn. The library on counseling circulates during the summer, and books are sent to students on request.

Operations from September to June

In September the Senior counselors return to the college three days before the Juniors arrive. They settle their rooms, press their clothes, and hold a meeting, at which the mimeographed plans pre-

pared the spring before are distributed and reviewed. Any changes that have become necessary or desirable are made, committees are appointed, jobs are assigned, and everyone is ready to go into action.

This action is divided into two periods. During the first four weeks, the Senior counselors serve as helpers as well as advisers. A committee of counselors meets the buses and trains. Each new student is introduced to her Cottey "big sister" and to the faculty dormitory director. Assistance is given in settling rooms; becoming acquainted with the buildings; and in learning about student organizations, traditions of the college, rules and regulations, and the academic program.

During this orientation period, each Senior counselor also acts as hostess at one of the tables in the dining room and as suite representative to the House Council. This daily association at mealtime and in the suite makes it possible for the counselors, and hence the faculty personnel workers, to detect causes of homesickness and to hear about incompatible roommates, academic insecurity, and individual problems. The areas of advice and discussion range from what to wear to a tea or where to take laundry, to the purpose of the battery of tests given at the beginning of the year or the way to budget one's study time.

After the first four weeks the second period of service begins, and the position of the counselor changes. She no longer does things *for* her charges. She helps them to help themselves. Homesickness and personal adjustments in the dormitory have passed their initial stages, and the problems that arise are more often of an academic or disciplinary nature. The counselor has learned during her training period where to take her counselees for more mature advice and assistance when she encounters situations with which she cannot cope. The chief responsibility of the counselor becomes that of a guide. She encourages the first-year students to make the most of their opportunities whether their interests are in the field of art, of music, of dramatics, of journalism, or any other academic or vocational area. The Junior becomes more independent as she has more and greater opportunities for leadership in the activities in which she at first merely participated. The counselor gradually withdraws.

Just as the counselors during their period of activity turn freely to the administration for help with problem cases, so the administration turns to the counselors throughout the year for information and advice that will help solve difficulties. The liaison function of the counselor has proved invaluable

in any number of cases, for the rapport which has long been established with the counselor carries over to the younger student.

By the middle of the second semester, "the wheel is come full circle," and it is once more time to select Senior counselors. The past year is evaluated just as was the one before it. Each year has seen some refinement of the techniques employed.

Values of the Plan

If each of the three groups involved has functioned properly, the counselors have had much valuable experience in leadership and in working directly with other people both younger and older. The counselees have been helped over the first few difficult weeks of adjustment to a new environment, new academic standards, and new personal requirements. They have been introduced to numerous opportunities for growth in independent activity and thought and have been

gradually forced to assume responsibility for their own successes and failures. The administration of the college has been able to do a better personnel job, both for the counselors and the entering Juniors. Much incidental teaching of counselors is made possible because of the complete understanding necessary between the two groups working together for the welfare of the new students.

Because the counselors hold a position of respect and responsibility, they grow in dependability and their judgment matures. They exert a beneficial influence over their classmates as well as over the new girls. Because of the help given by the counselors, the administration has been able to work more understandingly and sympathetically with the counselees, and the new students have been able to move faster and farther in the right direction than they would have been able to do otherwise. The whole college has benefited.

Building a Curriculum To Meet Industrial Needs

ROY E. MORGAN AND
WALTER R. HIBBARD, JR.

SAY, we've got a problem here, and we need some professional advice." It was the voice of the personnel officer in a local industry with which the New Haven YMCA Junior College had a co-operative arrangement.

"That's right, and we could sure use your help in working out a training program for one of our departments—the plating department."

Briefly, that is the telephone conversation marking the beginning of a project which resulted this autumn in the introduction of a plating engineering curriculum at the New Haven YMCA Junior College. So far as is known, the institution is one of the first to introduce a program at the college level stress-

ing both the metallurgy and the technology of plating. Interesting though this fact may be, it is not the real reason for this report. Certain other considerations are more worthy of attention. Here was an industry that was aware of the part that training could play in its personnel policy. Here was a request that required flexibility and adaptation on the part of an educational organization if it was to be met. This article, then, proposes to illustrate how an institution, alert to the needs of its industrial community, can tackle the problem of setting up a program to meet those needs, building a curriculum to supply the competencies and knowledge required to equip individuals to fit into the occupations of the locality.

To relate quickly and graphically the various steps in the development of the plating engineering course at New Haven would perhaps be the most helpful type of illustration. Here is the story. That telephone call from D. K. Willers, assistant superintendent of personnel for the Winchester Re-

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peating Arms Company, was the first inkling of the problem that anyone in the junior-college organization had. The question which immediately came to mind was whether this was apprentice training rather than collegiate training. We knew that the Connecticut state apprenticeship counsel considered electroplating an occupation requiring a three- or four-year apprenticeship, and our first inclination was to think of it as apprentice training. Hence it was necessary at the outset to determine the level of instruction required—for our general guidance and as a basis of decision on the question of whether or not the College should undertake the development.

The training of supervisors for plating rooms in industry has always been, as we shortly discovered, a local problem of some concern. Many of the manufacturers of metal parts finished their wares with a metal plate of some type for decorative, protective, or other purposes. The technology of their plating operations was generally developed by a company chemist and then placed in the hands of the plating-room foreman. The foreman in most instances was an exceedingly competent technician, usually a product of the "old school" who had learned his trade almost entirely on the job and was,

by and large, an expert in the art of "how," "when," and "where," and to a lesser extent "why." The training of the plating-room help, however, because of the limitations of time, had of necessity been limited for the most part to "how." Technologists in the plating field, therefore, are usually engineers or chemists trained in some related fields who have applied their general knowledge of the subject to the specific problem by "learning the hard way" or by constant outside study.

In the New Haven area, it should be added, the training of plating engineers was a problem of immediate concern to more than the one company. A quick survey revealed that between 125 and 150 companies within a 25-mile radius were conducting plating operations in their mills. Their operations included such varied requirements as nickel-plating for flashlights, nickel-plating and chromium-plating on innumerable automobile accessories, silver-plating on a variety of hollow ware and silverware, electrogalvanizing for protecting steel, hard chromium-plating for wearing surfaces, etc. Actually, the membership in the New Haven Branch of the American Electroplaters Society came to approximately two hundred. The training job certainly was one that required doing by some educational agency.

Job Analysis Needed

As previously mentioned, one of the first steps was to analyze the job and determine the level of training required. A meeting was arranged at the Winchester plant, attended by Mr. Willers and Mr. Henry Creamer, plating-shop foreman, as representatives of the company, and Mr. Harold W. Schaugency, industrial co-ordinator, and the two authors as representatives of the College. As a result of this and subsequent meetings plus a visit to the plating shop, it was eventually possible to arrive at an agreement concerning the objectives of the training program which was agreeable to both the company and the College. These objectives, as well as a careful analysis of the job itself, indicated the technical competence required and really placed the training at the college level.

The objectives of the program were three in number: (1) to supply qualified technical assistance to the foreman of the plating department; (2) to train metallurgists capable of solving problems in the plating of metals; and (3) to provide a basic engineering background for the job of assistant foreman of plating. The company itself obviously could give its student employees the experience needed to develop technical skill or, in other

words, could take care of the "how" of the training, since it had been doing that in the past. The company required assistance with the "why," and that is exactly where the College could best fit into the training picture. Visits to only a few other plants clearly revealed that this situation prevailed in their organizations just as it did at the Winchester Repeating Arms Company.

The typical operations in a plating department, for example, on a job requiring hard chromium-plating, will be described briefly. First of all, there is the cleaning. Before plating, the surface of the work must be rendered chemically clean by organic solvents, alkali cleaner, pickling, or mechanical cleaning. After cleaning, the work is mounted on racks and connected mechanically with anodes which conform with the shape of the part. Next comes the actual plating operation. The work gets its final cleaning in metal cleaner, a direct current of 6-8 volts at 200 degrees Fahrenheit being used, with the work as the cathode. It is then given a water rinse, followed by an "electrolytic etch" in sulphuric acid at about six volts for up to two minutes with the current reversed, and then another rinse. Finally, it is placed in the plating bath and is plated, a carefully selected current density and a controlled temperature being

used for the time necessary to obtain the desired thickness of metal. After the plating, the work is doused in water and dried. That, it must be pointed out, is only the plating operation itself. Leading up to that are the preparation of solutions, the determination of the plate and its physical characteristics, examination of the base metals, and so on.

Training Pattern Evolved

From the accumulation of information gathered through interviews, conferences, and plant visits, a definite training pattern gradually developed. The course program at the College would provide a fundamental technological supplement to on-the-job training in the plating room. All students would need as a basis for their later technical work a fundamental engineering training. They would need a knowledge of the electrical-power source for plating, the chemistry of plating solutions, the metallurgy of base metals and metallic deposits, and the technology of modern electroplating and finishing methods. Graduates from the program should be equipped with the fundamental technical basis prerequisite to the technical control and development of plating operations, the proper selection of a metallic plate for a given purpose, analysis of plating problems, and sales and service of plated items.

At this stage of the development process, the conferees were finally able to arrive at a tentative list of necessary outputs. Since it marked a decided step forward in their thinking and sheds a degree of light on the process of curriculum-building, that list is given below. It shows at a glance, more or less clearly, the related technical training needed for the job:

| | |
|------------------------|---------------------------------------|
| Electrochemistry | Basis of plating |
| Inorganic chemistry | Analytical methods |
| Quantitative chemistry | } ... for plating-room control |
| Metallurgy | Study of plated and plating materials |
| Metal finishing | Plating technology |
| Mathematics | |
| Physics | |
| Engineering drawing | Engineering background |

From this point on, the way was clearly marked. The proposal was laid before Thomas I. S. Boak, works manager for the Company, who gave it his full approval. It was agreed that a detailed program would be worked out and submitted for consideration to a group of technologists in the field. Keeping in mind that it was to be an evening program for men already employed in plating work, the committee then set about to develop the course content. The eventual result was a sixty semester-hour program of twelve courses, each carrying five semester-hours of credit, which would lead to the Associate in Science degree and was to be

completed in a three- or four-year span. Schedule I outlines the complete program.

The program involved three courses new to the College, namely, analytical chemistry, electrochemistry, and metal finishing. Two

courses to cover the immediate requirements of the program and to utilize only the mathematics that was covered in the Freshman course or that could be explained in the process of developing other course material.

SCHEDULE I
PLATING ENGINEERING PROGRAM AT NEW HAVEN YMCA JUNIOR COLLEGE

| <i>Year and Semester</i> | <i>Four-Year Program</i> | <i>Three-Year Program</i> |
|--|--|--|
| First year: Fall and spring semesters | Writing and speaking Mathematics Engineering physics | Writing and speaking Mathematics Engineering physics |
| | | Engineering drawing |
| Second year: Fall and spring semesters | Inorganic chemistry Direct-current circuits Engineering drawing | Inorganic chemistry Direct-current circuits Elective |
| | | Analytical chemistry |
| Third year: Fall and spring semesters | Analytical chemistry Nonferrous metallurgy Electrochemistry | Electrochemistry Nonferrous metallurgy Steels and their heat treatment |
| | | Metal cleaning, plating, and finishing |
| Fourth year: Fall and spring semesters | Steels and their heat treatment Metal cleaning, plating, and finishing Elective | |

problems were apparent: (1) the necessity of covering electrochemistry in one year without the benefit of a prior course in physical chemistry and without calculus, and (2) the necessity of summarizing all the basic fundamentals and transferring them into practical technology in a one-year course. It was necessary to develop these

Why These Courses?

So far as specific courses are concerned, the content of the first year's work is self-evident. The required English course was designed to develop functional competence in the use of language for communication. As in many other institutions, English is considered a tool subject, and emphasis is placed

on the development of communicative skill. The courses in mathematics, physics, and drafting are basic engineering courses designed to equip the student to handle more advanced technical work later in his training.

The need for the course in direct-current circuits and machinery may not be so readily appreciated. However, when one realizes that direct current is the source of power for plating, the reason for including it becomes clear. In addition to a knowledge of the fundamental theory of electric and magnetic circuits and their application to direct-current machinery, this course affords the student with laboratory experience in the measurement of electrical quantities and the characteristics of direct-current motors and generators—a knowledge readily applicable to his work in the plating department.

The chemistry sequence is aimed at developing laboratory techniques and enabling the trainee to acquire a knowledge of basic solutions used in plating operations. Fundamental principles are covered in general inorganic chemistry; analytical methods, in the following term's work; and the theory of modern electroplating in the electrochemistry course. The latter course is, without question, of prime necessity in the thorough training of a plating technologist,

particularly since it places emphasis on electrolytes, electrical conductance, electrolysis, electrodeposition, and such fundamentals of electrochemistry as are involved in the plating of metals.

The three remaining required courses are metallurgical. Nonferrous metallurgy deals with the characteristics and processing of aluminum, magnesium, copper, nickel, zinc, lead, tin and their alloys—the materials used in plating. The course in steels and their heat treatment covers the subject of ferrous metallurgy.

At one point in the development period the question was whether the program should include a course in methods engineering or the course in ferrous metallurgy presently required. The former course, it was argued, would show the student where an operation fitted into a manufacturing process. However, ferrous metallurgy was finally chosen; for, since steels are frequently the base metal in plating, knowledge that would enable one to detect defective or poor steels would be of great value in the plating room.

Metal cleaning, plating, and finishing was the one course in the curriculum limited in its usefulness only to those in plating engineering work. The syllabus for the course includes such topics as the factors involved in choosing the base metal,

its cleaning and preparation, the electrodeposition of a metal, and buffing and finishing the plate. Equipment, such as the source of power, tanks, solutions, and electrodes and their control, would be discussed. Specific attention would also be paid to the properties of the metallic coating, such as thickness, porosity, adherence, hardness, luster, and protective power. It was certainly a core subject in a terminal-vocational program such as this one.

Finally, it has been the practice of the College to have at least one "free" elective in each curriculum to allow the student some leeway in obtaining a background course. The elective could be chosen on the basis of the student's interest and work. It could range from a general cultural subject to a specific technical course. The personnel people at the Winchester Company, for example, urged those likely to be assigned supervisory duties to take for their elective a course in personnel supervision.

Work-Study Relationship

In due time the proposed program was presented for consideration to a group of practical plating technologists from various companies within the area. About the same time it was also being critically analyzed by personnel from the metallurgy department of Yale University. In general, it was re-

ceived with favorable comment, although certain suggestions were made that resulted in changes in the content of individual courses.

Eventually, all details of the curriculum were clarified. It now remained to be seen how the course sequence would tie in with experience on the job. This point was significant in light of the work-study point of view of the College and the College's belief that there are specific relationships to be established between learning on the job and learning in the classroom. It was also necessary since the curriculum was to constitute the related training portion of an on-the-job training program for veterans. Schedule II,¹ which is taken directly from the application submitted to the Connecticut State Department of Education for certification to the Veterans Administration, shows the integration between on-the-job training and related technical training.

Opportunities of the Community College

The development of this curriculum, as had the development of other programs at the College, confirmed certain convictions previously demonstrated. First of all, a community college must be aware of, and ready to meet, the edu-

¹ This schedule was worked out with the assistance of Joseph J. Goebel, field representative of the Connecticut State Department of Education.

SCHEDULE II

RELATION OF ON-THE-JOB TRAINING TO RELATED TECHNICAL TRAINING
IN PLATING ENGINEERING*On-the-Job Training**Related Technical Training***FIRST YEAR**

1. Safety precautions
 - a) Acids
 - b) Hazards on the job
 - c) Clothing, goggles, gloves, etc.
2. Rack plating
 - a) Nickel- and chromium-plating
 - b) Silver-plating

FIRST YEAR

1. English
2. Mathematics
3. Physics

Trainees whose tests indicate the need may be required to take additional courses, especially in mathematics. They may catch up with trainees not required to take such courses during a summer term.

4. Related technical training at the company in safety principles, applications of electricity, compounding solutions, company policy and practices

SECOND YEAR

1. Automatic nickel-plating—conveyor system
 - a) On brass
 - b) On steel
2. Nickel-plating—horizontal type
 - a) On brass
 - b) On steel

SECOND YEAR

1. Inorganic chemistry
2. Engineering drawing
3. Direct-current circuits
4. Related technical training at the company continues discussion of technical problems in electricity and compounding

THIRD YEAR

1. Tin-plating
2. Cadmium-plating
 - a) Miscellaneous plating on steel
3. Gold-plating

THIRD YEAR

1. Electrochemistry
2. Nonferrous metallurgy
3. Analytical chemistry
4. Company conferences—Technical problems, company formulas

FOURTH YEAR

1. Chemical cleaning of work
 - a) Solutions to be used
 - b) Methods
 - c) Safety precautions
2. Compounding solutions from formulas
3. Quantity and quality of production
 - a) Proper preparation of work
 - b) Spacing of work
 - c) Calculation of volume of work
 - (1) Area of work to be plated
 - (2) Length of time of plating
 - (3) Thickness of plating
 - d) Application of current: amperes required, etc.
 - e) Checking work: brightness of plate, defects, etc.

FOURTH YEAR

1. Steels and their heat treatment
2. Metal cleaning, plating, and finishing
3. Elective—For those whose future work may involve supervision of plating-room personnel, a course in personnel supervision is recommended. Additional work in personnel supervision may be secured during the summer terms of the last two years.
4. Company conferences
 - a) Calculation of volume of work
 - (1) Thickness of plating
 - (2) Length of time
 - b) Quantity and quality of production
 - (1) Technical practices of company in cleaning and finishing

SCHEDULE II—*Continued**On-the-Job Training***FOURTH YEAR (continued)**

3. Quantity and quality of production (*continued*)
 - f) Checking and analyzing solutions: neutral, alkali, acid
 - g) Formula of bath
4. Construction of fixtures
5. Sequence of operations

*Related Technical Training***FOURTH YEAR (continued)**

- b) Quantity and quality of production (*continued*)
 - (2) Checking solutions
 - (3) Checking defects
- c) Plating-room personnel problems

tional needs of its own community. In order to do so, it must be alive to the economic, social, industrial, and cultural trends affecting its community life, and it must be flexible enough to meet those trends when the occasion arises. The junior-college pattern, as well as that of education in general, is in these days undergoing changes that reflect the impact of postwar activities. New areas for semiprofessional training yet remain to be explored. Out of the war has come a great number of such occupations, for many of which terminal-vocational curriculums could provide suitable preparation. If educators are to be aware of these changes and keep abreast of them, there is evident need for closer

liaison between education and industry. It is when such a relationship exists that industry most easily overcomes its habitual distrust of the so-called "impracticalness" of the academic mind. That distrust, too, is readily undermined when the job of organizing a training program is approached by determining, first of all, what the real occupational needs are. To put it another way, job analysis not only is a sound basis for curriculum construction but is also a method of bringing together the practical and the theoretical, with advantage to both. Out of the use of this technique could very well come increasing opportunities for co-operation between industry and the junior college.

Guidance Practices for Veterans in Selected Junior Colleges

JOHN L. LOUNSBURY

AT THE meeting of the Committee on Research and Co-ordination held in Chicago during the 1946 winter meeting of the American Association of Junior Colleges, the Committee on Student Personnel Problems was instructed to make an immediate study of guidance practices used in handling veterans in junior colleges. It was the hope of the committee that the study could be made at once and that it would present patterns of procedures followed in handling a large influx of students just discharged from military service. The plan called for the publication of the results prior to the close of the college year 1945-46, but those re-

sponsible for carrying on the study found it physically impossible to gather and compile the data in time to meet that date line. The study was completed, and the data were presented at a meeting of all committees held in Chicago during the summer. At this meeting it was decided that a report of the study should be presented in an autumn number of the *Junior College Journal*.

In order to secure data on guidance practices used for veterans in junior colleges, a check-list questionnaire was prepared and sent to forty selected junior colleges representing all sections of the country. Thirty-one replies were received in time for tabulation. These replies represented colleges in seventeen states. The total student population of all colleges replying numbered 31,492, of which 10,203, or approximately a third, were veterans. These figures represent the number of students enrolled at the close of the second week of the second semester. While the number of colleges represented in the study appears small, the total student population is large enough to give a

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good sampling and thus to make the data secured fairly reliable.

In the development of the checklist questionnaire, two general purposes were considered fundamental and necessary: collection of data on (1) organization and administration of student personnel practices for veterans and (2) procedures used to determine the educational achievement and social adjustments required in an adequate guidance program for veterans attending junior colleges. This report of the data collected will, therefore, be presented under two general headings. The report will be brief because of the limited space that can be allotted in this issue of the *Journal*.

Organization and Administration

The data presented indicate that, at the beginning of the second semester, the influx of returning veterans had not disturbed, to any appreciable degree, the administrative organization of most colleges. In nearly all cases, however, the increase in teaching staff had not kept pace with the increase in veteran enrolment, and as a consequence class size had to be increased. At the time the data were gathered, most institutions were allowing students to enrol at any time or at short stated intervals within a given semester or term.

SUPERVISION AND COUNSELING.— There appears to be no general pro-

cedure regarding the employment of a special supervisor for the veterans' program. One junior college with a veteran enrolment of 1,306 has five full-time advisers or supervisors, while another, with 1,300 veterans, has only one full-time and two half-time supervisors. There are colleges whose replies indicate that their veterans' programs are being directed by several part-time employees—individuals who apparently carry a full-time or part-time teaching load and complete their assignment or assume extra work by helping with the veterans' program. Those assigned to the veterans' program on a part-time basis spend, on an average, about 46 per cent of their time with the veterans.

The character of the work done by the veterans' supervisor or counselor varies. Some reports indicate that the major portion of his time is spent as liaison officer between the veterans and the Veterans Administration. In a majority of the colleges the services of the veteran supervisor include both educational and vocational counseling, although veteran advisement centers are probably used in most cases to furnish vocational counseling service to veterans. Authorizing purchases of books and supplies constitutes the major portion of the work of some veteran counselors. A larger sampling of the practices followed by veteran supervisors and a more detailed study of their duties are

needed before a general conclusion can be reached. Obviously, there were not sufficient experiences on the part of respondents in this study to indicate general patterns of procedure and assignment. Perhaps the general administrative organization of the college has much to do with the assignment of responsibility to the veteran counselor or supervisor.

CURRICULUMS.—There is much evidence in the study that considerable reorganization of the curriculum is necessary to meet the educational demands of the returning veteran. More than 50 per cent of the colleges reporting indicate that coaching courses were inaugurated to care for veterans. The subjects taught in these coaching or refresher courses were, in order of frequency of mention, (1) mathematics, (2) English, (3) science, (4) social science, (5) commerce and business, (6) shopwork, and (7) instruction in how to study. About 30 per cent of the colleges grant credit for work experience under instructor supervision—an indication that junior colleges are recognizing their responsibility for technical and vocational training and are taking the necessary steps to offer such training. The evidence indicates flexibility and resourcefulness on the part of junior colleges in reorganizing their curricular offerings to accommodate the training needs of the returning

veteran. The greatest demand on the part of veterans came in the fields of science, engineering, and mathematics. These data correlate highly with studies of veterans' desires and plans made at the military establishments where veterans are separated from service.

CLASSIFICATION AND PLACEMENT.—In response to questions relating to the classification and placement of the veteran within certain grade levels, many and varied replies were received. The responses to these questions were so varied that no standard plan or procedure was clearly indicated. One reason for such a variety of responses is due, no doubt, to the accreditation requirements imposed on junior colleges by state and regional associations or the accreditation practices dictated by universities receiving the majority of graduates from any junior college.

Practically all junior colleges admit veterans who are not high-school graduates. Their placement within the colleges depends on test scores, credits earned in military service, maturity levels, and high-school training prior to military service. All respondents indicated plans for adjustment of the veteran's status, either through test procedures or special class organization, where deficiencies were apparent and remedial work was necessary.

Most colleges accept the result of

scores made on the General Educational Development Tests as valid evidence of ability to do college work. Many exceptions, however, were indicated. The exceptions are usually based on the special requirement of the student. If he wants to study engineering, for instance, or if there are special prerequisites for a certain curriculum, blanket acceptance of the results from the General Educational Development Tests are not acceptable. Most colleges accept the standard score required for high-school graduation as the one needed for registration in college courses, although some require higher scores.

Nearly all colleges accept credits earned through service schools. These credits are awarded in more than 90 per cent of the colleges replying to the questionnaire, in accordance with the American Council on Education's *Guide to the Evaluation of Educational Experiences in the Armed Services*.

Twenty-six of the thirty-one respondents award the credit recommended by the American Council on Education for the United States Armed Forces Institute subject examinations. Those colleges unwilling to accept such credit indicated that their unwillingness was due to the prerequisites demanded in certain curriculums.

Junior colleges admitting veterans who are not high-school graduates or who have not earned credits

under the G.E.D. or USAFI tests impose certain restrictions in the selection of courses. No common procedures regarding these restrictions were indicated by the replies received. Each college evidently works out the problem with the individual student through counseling, testing, and trial work in certain specialized courses designed to give specific aid and repair work for the student. In general, it can be assumed that all the colleges which admit veterans who have not graduated from high school have some organized procedures for repairing the veterans' deficiencies and aiding them in furthering their educational training.

TESTING PROGRAMS.—In response to the question concerning the veteran testing program within the colleges, a variety of replies was returned. Five of the responding colleges had veteran advisement centers on their campuses, and the testing needs for their veteran students were cared for by that organization. Six colleges sending in the check list gave no reply. Nineteen colleges, without advisement centers, indicated use of the following tests. These tests are listed in order of the frequency of mention: (1) American Council on Education Psychological Examination, (2) Cooperative English Test, (3) Kuder Preference Record, and (4) a mathematics aptitude test. Other tests listed once or twice are

Strong Vocational Interest Blank, Carnegie Mental Ability Tests, Bucknell English Tests, Stanford Achievement Tests, California Test of Personality, Henmon-Nelson Test of Mental Ability, and Iowa High School Content Examination, Science and Mathematics tests.

ORIENTATION OF VETERANS.—One other problem regarding the organization to care for veterans was presented in the check list, namely, the orientation or absorption of veterans into the regular student life of the colleges. The replies indicate that all colleges treat their veterans just as all other students are treated. Twenty-six colleges urge membership in regular campus organizations. Only thirteen have veterans' clubs organized for veterans alone. Only eight hold special classes in orientation for veterans. Three colleges use outside organizations to entertain veterans.

PLACEMENT OF VETERANS.—Fifteen of the respondents replied that they have a regular placement bureau for all students and that veterans are treated the same as all others. Some respondents indicated little need for job placement as far as the veterans were concerned. All expressed interest and concern about vocational counseling and have designated certain individuals within the staff to care for such work. If the Veterans Administration has a branch office on the campus or in the city, some colleges

delegate all the work of vocational guidance to that organization. Many use community facilities to aid in the work. The general character of the many different replies received indicates a definite concern on the part of all colleges, and each suggested some plan designed to aid the veteran in making and achieving his vocational choice.

Educational Achievement and Social Adjustment

The data secured in this study concerning veterans' educational achievements and social adjustments are more brief and sketchy than the information gathered about the organization and administration of veterans' programs. Such a condition is due no doubt to the fact that not many veterans had been enrolled in the junior colleges for one full semester before the study was made. Lack of experience with the veterans' educational achievement and social adjustment is evident as the replies from all respondents are studied.

NUMBER AND TYPES OF COURSES TAKEN.—In practically all colleges checked, 90 per cent of the veterans enrolled for twelve or more units of credit in the first semester of the college year 1945-46. On the average, about 25 per cent were registered in terminal courses, and about 75 per cent in transfer courses. Transfer courses are designated in the study as those used for pre-pro-

fessional training or other types of courses which might be transferred to institutions of higher learning.

ACHIEVEMENT.—In responding to the question regarding the scholastic achievement of veterans, twelve junior colleges indicated that the veterans' marks were higher than those of the average students; fifteen indicated their scholastic rank to be the same as that of other students; and only two colleges reported a lower scholastic rating for veterans. Two colleges reported no data available.

From the reports given by twenty-five colleges reporting, lack of achievement falls into the following general categories, listed in the order of frequency of mention:

1. Insufficient or inadequate background
2. Inability to settle down; maladjusted; not oriented to study
3. Attempting work beyond capability; poor student before entering service
4. Emotional disturbance, including personal and family difficulties; upset social and mental environment; lack of confidence; housing worry
5. Finances, including slow pay of subsistence allowance
6. "Rusty" because of length of time out of school
7. Program too heavy; too much outside work
8. Physical handicaps and disturbances; unsettled as to plans; lack of interest
9. Inadequate study
10. Courses rigid and unmotivated

One college replied, "The veteran who presents a difficulty traceable to service experience is the exception."

These reasons for lack of scholastic achievement are quoted in full, because in the list may be found a reason for the scholastic failure of any veteran in any college. A careful study of each veteran's problems is necessary when achievement is below average, and the list may name some condition that affects the veteran's ability to achieve acceptable marks in the various courses.

DROP-OUTS.—The veterans who dropped out before finishing their first-semester courses range from none to 40 per cent. This range of drop-outs is wide, and the reason for the high percentage in one or two cases cannot be determined from the data submitted. Thirty per cent of the colleges replying indicated that about 8 per cent of the veterans dropped their courses. This appears to be the average figure.

The causes for dropping out are similar, in the main, to those listed above as reasons for poor achievement. In addition, however, change in plans, securing work, and change in location are also factors influencing the number of drop-outs.

ATTENDANCE.—Only one college out of the twenty-eight responding to the question indicated that there was noticeable irregularity on the part of veterans. On the whole, veterans' attendance regulations and problems are not too different from those of the regular students,

and, in most cases, veterans are treated as all other students.

VETERANS' REACTIONS.—Twenty-eight colleges indicated that veterans, in the main, are satisfied with the educational programs offered. Some criticisms offered by veterans were that the courses desired were not offered, that the courses were too hard, that the regular students were immature, and that the instructors were too academic. These criticisms were by no means universal, only a small number of colleges reporting any one statement. Further proof, however, that veterans as a whole are satisfied with the training offered in junior colleges is indicated by the fact that only one college, out of thirty replying, stated that these students are "shopping around." This one college may have furnished the key to the situation by the statement: "The veteran is shopping around where he can find housing."

VOCATIONAL OBJECTIVES.—That veterans have definite professional and vocational objectives is indicated by twenty-eight replies out of the thirty-one received. In all the twenty-eight replies received, only one or two indicated a small percentage of veteran students with no definite objective. More than half the respondents indicated that 90 per cent or more of the veterans have definite professional and vocational goals. Such a percentage

would probably be as high as, if not higher than, that found in the normal junior-college pre-war student population.

Perhaps the high percentage of veteran students who have definite objectives is due to the mature age of these students. Respondents indicate that the age of veterans in junior colleges ranges from twenty to twenty-seven years. Such age levels are considerably higher than the normal age groups entering college. Respondents also indicated that most of the veterans are in a hurry to make up for lost time—further evidence that, in the majority of cases, veterans know their objectives, are mature enough to achieve these objectives, and work hard in order to hasten their progress through college.

NEED FOR PART-TIME EMPLOYMENT.—Data submitted indicate a wide range of requirements on the part of veterans in securing part-time employment. One college indicated that 100 per cent of the veteran students required part-time employment, whereas two respondents indicated no veterans requiring employment. Because of the great variety of replies, perhaps no definite conclusion can be reached. At the time the data were sent, living costs were lower than they are at present, while government allocations for subsistence have not increased. Thus the eco-

nomic conditions that affect the living condition of veterans in college have changed, and the requirements for part-time employment for veterans in college will no doubt change as economic conditions fluctuate.

SOCIAL LIFE AND LIVING CONDITIONS.—Most colleges indicate that veterans are satisfied with the social life in junior colleges. The dissatisfactions expressed centered in such grievances as unsatisfactory living conditions, living too expensive, girls too young, too little social life, and too much immature college activity.

In response to several questions regarding living and housing conditions, no clear-cut ideas were expressed or conclusive data submitted. Some colleges consider it their responsibility to furnish housing for veterans, and about the same number consider such activity outside their realm of responsibility. In general, the responsibility for housing veterans in most junior colleges is considered about the same as the responsibility for housing regular students. About the same number considering it the college's responsibility to furnish housing in-

dicated that they were planning to provide special housing for veterans. From the data furnished, no definite statement can be made regarding the responsibility assumed for housing veterans or for a general pattern of procedure for all colleges. No doubt, local conditions and the character of the student population in the college determine the policy that should be adopted in housing veterans.

Concluding Comment

Though this study has been hurriedly and perhaps sketchily done, it gives some indication of the problems involved in training veterans and shows how a small number of colleges have handled their problems. No one will deny that the junior colleges are facing challenging problems in helping to provide collegiate training for returning veterans. How well the junior colleges answer the challenge will, in a very material way, determine their future growth and development. It is hoped that the information presented in this article will, in a small way, aid all junior colleges to meet the challenge presented by the influx of veterans.

Terminal Home Economics in Junior Colleges

EUCLID SMITH

DURING the past decade realization that the curriculums in junior colleges were not meeting the needs of the majority of the students has been developing in the minds of educators. Many factors led to a recognition by this writer of the deficiency of existing home-economics offerings in solving significant life-problems of certain groups of students. Her interest in this problem was rekindled by a brief study which she recently made on the withdrawal rate of students in a public junior college of the Southwest. Further realization of the inadequacy came with her first contact with a finding reported by Eells that, for the country as a whole, only a fifth to a fourth of all students entering junior colleges continue beyond the junior-college level (6: 60).

The present study was made to determine some of the needs of certain groups of students that home economics might aid in meeting, to study adequacy of existing curriculums, and to discover ways of recognizing and meeting some of

the urgent home-life problems created by war and postwar conditions.

Definitions of Terms and Sources of Data

In general, a survey of college catalogues and of the literature indicated some degree of standardization in usage of designations in terminal education. Since there is some evidence of conflicting usage, definitions of terms as they are used in this study will be given.

Those curriculums enrolling students who intend to complete their formal schooling in junior college are designated "terminal curriculums." A "preparatory" or "pre-professional course or curriculum" refers to one which enrols students who expect to continue further study in that particular field in a senior college. "Semiprofessional" is the term applied to curriculums that are designed to give training toward earning a livelihood. It has been chosen in preference to the term "vocational," which is common in much of the terminal literature, because students need to learn how to live as well as how to make a living. Therefore, "semiprofessional courses," as used herein, designates courses which provide

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for training in development of salable skills and of qualities contributing to a satisfactory life of the individual. Homemaking has been classified under semiprofessional courses because additional formal education beyond the junior-college level is required for professions.

The data for this study were obtained from three sources. One source was the recent literature in the fields of the junior college and home economics. This material was carefully studied to determine the present status of terminal home economics, the needs of students which could be met by courses in home living, available occupations for women with limited home-economics training, and determining factors in student mortality in home-economics courses.

The curriculum offerings of a selected group of twenty public junior colleges of the West and the Southwest, as indicated in their college catalogues, were used as another source. Requests for bulletins were made to the colleges listed by Eells (5: 235) as offering terminal courses in home economics.

A third source of information was the writer's files, which contain data on approximately twelve hundred students formerly enrolled in her classes in a junior college and on one hundred women, former members of her adult-education classes.

Need for Terminal Offerings

From a canvass of the literature the writer was convinced of the need for terminal offerings. The low rate of survival among college students (50 per cent reported by Cole [3: 89]) and among junior-college students (40 per cent reported by Eells [5: 60]) and the large proportion of students (66 per cent) enrolled in curriculums preparatory to advanced work (5: 24) may be largely results of the failure of the colleges to provide suitable terminal curriculums (7: 265).

THE NEED IN HOME ECONOMICS.— Since home life probably is the greatest single factor in influencing individual lives and thus society, education in the field should not fail to provide what is most needed. Unfortunately, studies of student mortality give evidence that it has failed to do so in the past (1, 8: 105).

No studies on the mortality rate of home-economics students in junior colleges were found in a survey of the literature. Data extending over a period of sixteen years on home-economics majors for one public junior college were available from the writer's personal files. While 20-25 per cent of all junior-college students enrol for the third year in institutions of higher education, 38 per cent of these home-economics students enrolled. Follow-up studies showed that fewer

than 1 per cent of the latter students enrolling dropped out before graduation from the senior college. The withdrawal rate in the junior college was much greater among Freshmen than among Sophomores and also among students enrolled in the terminal curriculum than among those in the professional home-economics curriculum. The peak of withdrawal was during the first semester of the Freshman year.

Brown and Arnesen, analyzing the causes of high mortality among home-economics students, conclude that focusing attention almost entirely on preparation for professional positions is the basic reason for the heavy rate of withdrawal (2). Data obtained from the writer's records on twelve hundred junior-college women confirm Brown and Arnesen's findings. Failure in chemistry during the first semester, with consequent frustration, was listed as the most common cause of withdrawal. On the records of the terminal students who withdrew, the most frequent notation was "Subject matter not adapted to student's ability or need."

The withdrawals in this field indicate, to some degree, the need for shortened and modified curriculums, but it is only one of a number of reasons for a terminal program in homemaking education.

In 1940 approximately twenty-nine million women and men were

engaged in housework in their own homes. More than half as many were engaged in homemaking as in all other vocations, and about three times as many in homemaking as in any other given vocation (4: 266). Such figures give only a partial picture, for they omit the throng who live in "gas-plate" bedrooms. The home economist who fails to classify the needs of this group under education for home living is overlooking what might be one of the most vital outcomes of homemaking education.

It is also necessary to recognize that problems of adjustment in home life are likely to be greater now than at any previous time. It is the responsibility of the college to provide education to meet these and other urgent problems. War, also, has brought about marriage at an earlier age for both young men and women. To be most useful, home-life education, like all education, should be given at the time when it is most meaningful to the individual. Thus home economics at the junior-college level has possibilities of being of great value, as this is the age when many young people assume responsibility for homemaking.

On the other hand, there are students who are not contemplating immediate marriage but who will need to utilize their home-economics training in wage-earning. They will have individual needs for

training in specific semiprofessional phases of home economics, and curriculums which will provide such training should be planned. Unless the time spent in college is limited, the student should be encouraged to select, in addition to the specific training, the core course on home life. Ninety-nine per cent of the twelve hundred junior-college women on whom it was possible to make follow-up studies from the writer's personal files, were married within seven years after entering home economics as Freshmen. Less than seven years elapsed between the entering date and marriage in the case of students who withdrew and of those who terminated their formal training with junior-college graduation. The majority of the professionally trained women spent some time in gainful employment after graduation from senior college.

Analyses of Home-Economics Curriculums

Analyses of the findings of home-economics curriculums were made (1) to determine the efforts being made to meet the needs of 75 per cent of the students who do not continue beyond junior college and (2) to find material which would afford guidance in establishing curriculums.

In a study made in 1938-39 of the curriculums of 443 junior colleges, 308 colleges were reported as

offering terminal curriculums (5: 51). The specific terminal curriculums offered by the largest number of 293 institutions are listed in Table 1.

TABLE 1.—TERMINAL CURRICULUMS OFFERED MOST FREQUENTLY BY 293 JUNIOR COLLEGES (5: 49)

| <i>Curriculum Offered</i> | <i>Number of Institutions</i> |
|---------------------------|-------------------------------|
| General business | 183 |
| Secretarial | 164 |
| Music | 141 |
| Teaching | 137 |
| General | 138 |
| Home economics | 106 |

All other curriculums were offered by fewer than 100 institutions. Of the 41,507 students enrolled in terminal curriculums in the 293 junior colleges, more than a third were in business curriculums, while 3 per cent were enrolled in home economics.

In a study of terminal curriculums made by the American Association of Junior Colleges (5: 52), the terminal home-economics curriculums offered by thirty-seven private and public junior colleges were analyzed. It is clear that the emphasis was placed on courses in foods and clothing.

Analysis of Catalogues

Due to exhaustion of stocks, it was impossible to obtain catalogues from all junior colleges selected for study. However, the sampling is believed to be fairly representative in three main aspects. It includes

small, medium, and large colleges; colleges in localities with semiprofessional opportunities diversified as to nature and number; and colleges of meager terminal offerings and those with a relatively large number.

Analysis showed two chief characteristics. First, much of the home-economics work now offered in junior colleges is pre-professional. Many junior colleges offer courses identical with those of the first two years in the four-year colleges or universities. Second, many of the courses offered under the terminal curriculums are identical in content and apparently in method with those of the pre-professional courses. In fact, there is evidence to indicate that the students of the two curriculums were enrolled in the same classes.

The main difference in the two curriculums, especially in the colleges with small enrolments, was found to be in the courses required in other departments. In fairness to teachers in these colleges, it should be noted that they were recognizing a need of students and were attempting to meet it to the degree that the limited staff permitted.

In the comparison of pre-professional and terminal curriculums it was noted that, with one exception, all the junior colleges omitted chemistry from the terminal home-life curriculum. In a few cases no

science was required in the terminal curriculum, but the majority of colleges required biology. In approximately 70 per cent of the colleges, the biology courses for the two curriculums were identical. All the colleges requiring foreign language or history in the pre-professional curriculum omitted that requirement in the terminal home-life curriculum.

With one striking exception, English was required in the Freshman year for both curriculums. The requirement of only one semester of English in the pre-professional curriculum rendered the exception unique. One-third of the colleges required traditional English composition. Physical education was required in all curriculums except in one college which offered no physical education for women. A greater number of units in electives was allowed in the terminal curriculum in all but one college, which allowed more in the pre-professional curriculum.

This study of the catalogues for 1944-45 showed rather marked contrast with studies of earlier catalogues. Courses in child development, family relationships, family finance, and home furnishings, formerly postponed until the upper-division work of the senior college, were offered in approximately 85 per cent of the terminal home-life curriculums of these junior colleges. Furthermore, two-

thirds of these colleges offered the greater number of such courses in the Freshman year.

In summary, it may be said that offerings in terminal home economics range from meager to relatively abundant. Home-economics departments in which the only demarcation between professional and semiprofessional curriculums is in

TABLE 2.—TERMINAL CURRICULUMS IN HOME ECONOMICS OFFERED BY TWENTY JUNIOR COLLEGES

| <i>Curriculum Offered</i> | <i>Number of Institutions</i> |
|-------------------------------|-------------------------------|
| Commercial dressmaking | 9 |
| Child-care assistant | 6 |
| Cosmetology | 5 |
| Power-machine operation | 4 |
| Food service | 4 |
| Costume-designing | 4 |

the courses required in other departments are considered as having the former class of offerings. An example of the latter group would be the college with nine terminal home-economics courses and other major differences in its terminal curriculum.

Of the twenty public junior colleges included in this study, seventeen offered terminal curriculums in home and family life. In addition, all departments offered one or more semiprofessional curriculums. Table 2 shows the specific semiprofessional curriculums offered by the largest number of the twenty institutions. All other curriculums, such as waitress training and hotel management, were each offered by fewer than three institutions.

It is worth noting that effective planning of a curriculum would promote maximum efficiency in the use of facilities and of available staff members and, at the same time, meet the needs of individual students. For instance, one curriculum prepared for employment in dressmaking, costume-designing, or power-machine operation. The curriculum for child-care assistants and the curriculum in home and family life required some of the same subjects. The problem of limited staff members was met partially in one college by giving the same course for the homemaking and vocational groups but requiring of the vocational students additional units of work.

Attention should be called to the fact that some of these curriculums were offered by four-year junior colleges, including Grades XI-XIV, and hence would not be practical for the two-year junior college unless the students had received recent home-economics training in excellent high-school departments or showed special talent in the chosen area.

Almost all the seventeen junior colleges required two years for the completion of the home-economics terminal curriculums. The Sacramento Junior College offered a one-year curriculum in nursery-school training, which not only required one year less for completion but was concentrated more on studies

of young children than were those of the five other institutions offering training in this curriculum.

The curriculum for cosmetology offered in four junior colleges was of interest. In addition to the skill courses in that vocation, the following courses were generally required: psychology, child development, English or business English, marriage and the family, first aid, public speaking, related science, physical education, and design.

The descriptions of the courses given in the college bulletins were studied to determine whether they were organized in such a manner as to apply directly to family life. The findings were disappointing. For instance, in most of the courses there seemed to be just as much emphasis on the "history of the family" as there was in such courses offered twenty years ago. On the other hand, subjects like family finance, food for the family, and household science, which were designed to meet the tangible rather than the intangible problems, more nearly attained the objectives set up for present-day curriculums.

Findings on Occupations for Women

In addition to the analyses of the catalogues, a brief study was made of listings of occupations suitable for women. A tabulation was made of the occupations in which home-economics training in junior college

would be an asset. These occupations were then checked in an occupational dictionary in order to determine the specific nature of each occupation and the period of training necessary. The revised list was analyzed as to practicability for use under conditions given in this study. The analysis was accomplished (1) by study of the few available surveys on the subject, descriptions of curriculums in the college bulletins, and the follow-up notations on the writer's records and (2) by recall of experience and observation of work experience and job surveys made in a junior college.

From these analyses a few important facts emerged. It is obvious that there is a lack of adequate information with respect to trends in many of the semiprofessional occupations. It is also apparent that present conditions should not be accepted as normal from the standpoint either of wages or of availability of employment.

Emphasis on the necessity of making a survey of the occupational opportunities in the local community in order to plan adequately and to carry out successfully the semiprofessional program is present throughout the literature. Provision must also be made for work experience while the students are in training. It seems to be the consensus that thorough analyses of the available jobs are necessary in order to discover and provide

for the needed skills in each job. It is highly desirable to develop close co-operation between prospective employers and the college. Another finding is that, as a rule, off-campus work experience seems to afford somewhat greater value to the students, probably because requirements for the job have to be made under actual work-world conditions.

Another recurring suggestion in the literature is that colleges should maintain a follow-up program after students are placed in permanent positions. This procedure, if correctly conducted, would be valuable to the students who are holding the positions, the employers, the college, and students who enter the same vocations in the future. Two of the most valuable contributions that could result from analyses of the work experience would be the determination of weaknesses in the training program and the suitability of students for their chosen vocations.

Another finding of the survey is that data on home-economics training for semiprofessional occupations are exceedingly limited. Most of the articles on the subject contain material that is almost entirely subjective.

The literature and experiences both indicate that it is wise for the small junior college to limit its semiprofessional program in home

economics. In addition to the terminal home-life curriculum, not more than one or two semiprofessional curriculums should be attempted. The offerings may be extended and a much greater service rendered through co-operation with other departments in the college.

The follow-up studies from the writer's files show that about 85 per cent of the home-economics students entering gainful employment on graduation from junior college are in clerical positions. More than 50 per cent of these are employed in dentists' and physicians' offices or in health clinics. There is a reason for the high percentage entering this field. Since the city afforded more positions of this type than any other, the students had been counseled to choose their electives in the commercial department and thus were qualified to meet the requirements for certain types of clerical work.

Doubtless four factors functioned in causing more than half of these young women to be employed in medical offices. (1) Their training in commercial education, while not extensive, was adequate to meet the clerical needs of such offices. (2) The home-economics training had contributed to their poise and the development of thoughtfulness of others. (3) Their understanding of children was a valuable asset in a doctor's office. (4) The former

students employed in these offices regularly notified the college of vacancies as they occurred. The vacations of the regular employees in these offices also provided opportunities for work experiences for the students in training, which in some cases led to future employment.

Of the remaining 15 per cent of the students, the greatest number were employed in retail selling, chiefly in the clothing division of department stores. Small percentages were assistants to interior decorators, owners of arts and craft shops, managers of dressmaking shops, food-service workers, shop-window decorators, and child-care assistants. Less than 0.5 per cent were employed in the last-named category, probably because terminal training in this curriculum has been offered for only a short time and child-care centers in the community are a comparatively recent development.

All sources used in this survey were in agreement that no program established for semiprofessional training should be so narrow that it trains exclusively for a job but that it should be so planned as to promote the development of a more satisfactory life for the individual student.

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From the Executive Secretary's Desk

JESSE P. BOGUE

AN EXAMINATION of junior-college catalogues which flow across the Executive Secretary's desk creates deep feelings of admiration for the services that junior colleges are rendering to the people of these United States. Our attention is called to the great expansion of established institutions and to the creation of new ones on an unprecedented scale.

Our pride in the junior colleges is matched in every section of the nation. A typical expression to this end comes from Dr. John L. Lounsbury, president of San Bernardino Valley College, California:

I think most every junior college in the state increased its registration 100 per cent. You can repeat as many times as you care to this statement: If it had not been for the public junior colleges of California, this state would have failed miserably in its responsibility to veterans in providing educational facilities under the provisions of the G.I. Bill. The junior colleges have saved the day for this state, and in the years ahead I am sure they will be recognized for their fine service to our returning veterans.

Our satisfaction with work well done should, however, help us to see how our work may be done better. Therefore, some persistent questions are raised as educational pro-

grams are studied. One of the more serious concerns itself with the nature of general education, especially for the terminal student in the junior college. The responsibilities of colleges across the entire nation have been greatly enlarged, not alone because the number of students increased, but also because the necessity for *kind* and *quality* of instruction cannot be overrated. Our age needs skilled hands, but it also demands social intelligence and a cultivated sense of appreciation for the beautiful creations of nature and man.

Anyone who has directed the program of a junior college knows what it means to plan university parallel courses. By and large, some 30 per cent of junior-college students wish to transfer to the upper divisions of senior colleges or universities. For these students, the plan for junior-college studies is already well defined—argue the point or not. Once the junior college accepts the university-preparatory student, it assumes a serious and real obligation to offer subjects that he must have for full credit in the university. In respect to the university transfer student, therefore, the junior college is destined to follow the path

of the senior institution for some time to come.

For the student who will complete his full-time formal education in the junior college, the field is wide open and free for experimentation in general education. Why do more junior colleges not take advantage of this opportunity? There are hundreds of thousands of young persons, especially among the women, who desire no particular gainful occupation. Junior colleges should seriously re-examine their educational programs in the light of the needs of this large group of students. Because the problems of transferring credit do not enter the picture, the junior colleges could strike out boldly and persistently. Some of them are doing just that. Others are making timid attempts, and altogether too many are failing to grasp this great opportunity.

Even though the *need* for general education for terminal-vocational students is just as great as it is for all other young people, the time demands for specific vocational subjects must be met. Perhaps some far-sighted and brave college will find a way to integrate general and vocational education. If it does, it will need to discover a rare type of instructor—one who can see the far-reaching implications of technical subjects. General education is as general as the comprehension

and ability of the instructor and his students to make generalizations.

Attempts at general education are being made for junior-college terminal students by some large universities. These institutions have seen groups of students flounder for a year or two and finally drop out—with what? The General College of Boston University is one of the newest members of our Association. The curriculum of the General College is designed definitely, although not exclusively, for the terminal student. Among other objectives shown, the catalogue states that the curriculum is for "students who desire a terminal general college course planned specifically to be completed in two years." A challenging statement is made by the University:

The General College, an entirely new Department within Boston University, is designed to fill a long-felt need, to supply a type of training not elsewhere available in any other Department of this University—or *in fact in any New England educational institution* [italics ours].

If the statement in italics is true, one wonders what junior colleges, both in and out of New England, are doing to meet this "long-felt need." The Executive Secretary's desk will welcome information on plans and programs designed to meet this challenge.

Junior College World

WINIFRED R. LONG

Assistant to the Executive Secretary

NEW COURSES THIS FALL

BRAND new courses feature the programs of many junior colleges this fall. Radio, including a television workshop, and journalism have been added to the curriculums offered by Finch Junior College, New York. Beginners' Russian has been added at Union Junior College, New Jersey. San Antonio Junior College, Texas, is offering a new curriculum in building construction and estimating, and its affiliated Negro institution, St. Philip's Junior College, is offering work in radio for the first time.

Gila Junior College, Arizona, has added curriculums in basic art, flight training, radio, advanced agriculture, and distributive education. In the distributive-education program, students will attend school a half-day and during the other half-day will receive practical, on-the-job training in local stores, banks, law firms, and other business establishments. Lees-McRae College, North Carolina, has also inaugurated an industrial work-study program, operative in its drafting, mechanical-drawing, and shop courses, with employment arrangements with such well-known firms as the North American Rayon

Corporation, Johns-Manville Company, etc. Hardin College, Texas, has a new on-the-job farm-training program for veteran farmers and ranchers in its area.

Flight training has been started at Northern Oklahoma Junior College; McCook Junior College, Nebraska; and Bergen Junior College, New Jersey. Ground-school courses are new at Flint Junior College, Michigan, and Edinburg Junior College, Texas.

INTERMONT'S READING CLINIC

PLANS going forward at Virginia Intermont College will provide a well-equipped reading clinic and psychological laboratory. The individual student will be given tests by several of the best-known instruments for measuring the efficiency of eye-power, the speed of reading, and comprehension. Remedial exercises will follow the diagnoses. In addition, psychological tests will be given to provide the needed knowledge so that the faculty "may better guide as well as teach."

The college is also making these services available to the local community and near-by areas. Already the testing service is in demand.

LINDEN HALL: 1746 TO 1946

LINDEN HALL Academy and Junior College, Pennsylvania, celebrated its two-hundredth anniversary in June. The institution, which began as a village day school thirty years before the Declaration of Independence, is believed to be the second oldest school for girls in the United States. The observance of its second century mark included a "Pageant of Education," in which 150 students and townspeople took part, depicting scenes in the history of the school from its founding by Moravian settlers in 1746 down to the expansion of the postgraduate department into a junior college in 1935. Representatives from more than a hundred colleges, universities, junior colleges, and preparatory schools attended the closing convocation, a feature of which was an address by Lady Henschel, of Aviemore, Scotland, graduate of the class of 1889, formerly head of the music department of the school and a member of the Council of the League of Nations.

FOUR-COLLEGE DEBATE ON U.N.

STUDENTS belonging to the International Relations Clubs of Austin, Rochester, and Worthington Junior Colleges, Minnesota, and Waldorf College, Iowa, gathered at Austin on May 14 for a panel discussion meeting on the United Nations. The fact that about half these students were veterans of World War II contributed much to the liveliness and pointedness of the discus-

sions in the four section meetings which featured the day. The topics under examination were the General Assembly; the history and work of the Trusteeship Council and the colonial problem; the Security Council and military staff; and the International Court of Justice and the Economic and Social Council. In the evening Dr. Harold Deutsch, of the University of Minnesota, talked on "The United States, Russia, and the United Nations," out of fresh experiences gleaned on a recent European mission.

These four International Relations Clubs, like the many others which have been organized in junior colleges throughout the country, receive support from the Carnegie Endowment for International Peace.

VOCATIONS DAY

A HIGHLY successful Vocations Day was observed this spring at Tennessee Wesleyan College. A total of 775 students from 25 high schools in the surrounding territory joined the students of the college in a one-day intensive study of vocations in which they were interested. A total of 1,114 students, plus teachers, experts representing the various vocational fields, and faculty members of the college, took part in the day-long ceremonies. This was the sixth observance of the annual event, co-sponsored by the college and the local Kiwanis Club.

Recent Writings

Judging the New Books

Elementary Courses in the Humanities. Report of the Third Annual Conference Held by the Stanford School of Humanities. Stanford University, California: Stanford University Press, 1946. Pp. viii + 146.

THE third annual conference sponsored by the School of Humanities at Stanford University considered a theme, "Elementary Courses in the Humanities," which is of interest and importance to junior-college faculties. Extensive experimentation and wide variation in curriculum practice and teaching method reveal that the position of the humanities is in a state of flux, not only in the junior college, but also in the senior college and university. For this reason it is particularly significant that the Stanford School of Humanities has devoted one of its annual conferences to a consideration of beginning courses in the field of the humanities.

More than forty faculty members from some thirty junior colleges, senior colleges, and universities were on the program as speakers and participants. If the conference did nothing more than bring together such a group of teachers for

the discussion of teaching problems, it would have made a significant contribution to education.

Committee One discussed elementary courses in literature and the fine arts. The committee particularly considered issues relating to placing emphasis on historical background versus confining study primarily to literary and artistic works themselves. The report indicates general agreement that "the teacher of literature and the fine arts should place the study of meaning (including moral and ethical significance) first and the study of the formal aspects of a work second, drawing on the milieu from which the artist and his work were produced as much as is necessary—but only as much as is necessary—to make clear to the general student the significance of the art object's meaning and form" (p. 68).

Committee Two considered the question whether required modern-language courses should emphasize a speaking knowledge, a reading knowledge, or both speaking and reading knowledge with apparently equal stress given to each. Members of this group, in general, agreed that primary emphasis should be given to reading knowledge. Several committee members stated

that "given a competence in reading, a speaking competence can be rapidly acquired during a period of residence in a foreign country" (p. 86).

Committee Three discussed "the first course in philosophy"—and apparently had more conflict and disagreement than any of the other committees. Ought the first course be a study of logic, a study of problems of philosophy, a study of divergent philosophical points of view, or a historical introduction to selected philosophers and their writings? The committee was unable to come to agreement. Quite obviously, the beginning course in philosophy is one which needs study and experimentation.

Committee Four considered "the general humanities course." It was suggested that there are in different situations and in different colleges places for general courses of various types (historical, sampling, and broad-survey). Most members of the committee favor drawing upon specialists in various fields for lectures and teaching rather than having the course taught by one man.

It is regrettable that in a volume on elementary courses in the humanities only passing attention is given to music and the fine arts. Likewise, the absence of reports of research studies is notable.

While he read, the reviewer considered: What of the report's sig-

nificance to our Association as an organization in connection with its expanding program of service and activities? Two specific suggestions occur to the reviewer.

First, the Association's Research and Service Committees might well sponsor experiments and research studies dealing with several of the problems considered by the committees at Stanford. One of the shortcomings of the conference here reported is the absence of research findings. The American Association of Junior Colleges through its committees could well take steps to make studies the need for which is clear after a reading of this volume.

Second, the Association might well sponsor at each of its annual meetings a series of conferences (planned especially for teachers) on courses in various fields—humanities courses, one year; science, the next; marriage and family, the next; and so on. As part of its expanded program the Association aims to encourage teachers to participate in its meetings and its other activities. Here is a "natural" for encouraging such participation. The Association could and should have a hundred or more classroom teachers present at its annual meetings and participating in the consideration of teaching problems.

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Selected References

S. V. MARTORANA

- ECKELBERRY, R. H. "Junior Colleges Look Ahead," *Journal of Higher Education*, XVII (February, 1946), 107-8.

An editorial comment on recent and proposed activity of the American Association of Junior Colleges. The editor points out the trend toward universalization of the thirteenth and fourteenth grades of school work: "The junior college . . . faces problems comparable to those faced by the high school a quarter-century ago. If it is to meet the needs of a much larger and more heterogeneous student body in a time of rapid social change, it will have to deal boldly with problems of curriculum, student personnel, and training of its teachers. . . . The signs indicate that junior colleges are alive to their responsibilities and are preparing intelligently to meet them" (p. 108).

- LOUNSBURY, JOHN L. "Planning for Junior College Education," *Higher Education*, II (December 15, 1945), 6-7.

Discusses work accomplished to date by the Committee on Postwar Planning of the American Association of Junior Colleges. The article stresses the junior-college function of service to terminal students as well as to preparatory students: "The educational program of the junior college must be geared to the needs of all post-high-school youth and adults living in the area served by the college." The author points out three specific problems that were attacked by the Committee on Postwar Planning: (1) the amount and character of general education that must be included in all types of regular and specialized curriculums offered in the junior college; (2) the nature, character, and needs of technical or terminal training in junior college; (3) the responsibility of junior-college education in the revitalization and improvement of American home life.

- MORRISON, J. CAYCE. "New York's Youth in Wartime," *Educational Forum*, X (November, 1945), 23-29.

Discusses the results of three studies of out-of-school youth of secondary-school age carried out in the period 1940-44 by the Research Office and Guidance Bureau of the New York State Department of Education. The first study was a follow-up of youth who graduated or left school during the year ended June, 1940. Because the year 1940 was most normal, being little influenced by depression or wartime conditions, the record of this group proved a good base against which to observe the experience of the succeeding groups. "Analysis of the returns disclosed the wide gap in the needs for counsel and guidance between those who left to go to work and those who went from high school to college" (p. 24). In the late spring of 1943 a second follow-up was made of the 1940 group to see what two years had done for or to these individuals. Among the approximately seven thousand responses there were expressions of need for practical education; for competent guidance on a purely individual basis; for more adequate social education, such as education for personality development, etiquette, psychology, and marriage.

In May and June, 1944, a follow-up was made of the youth who graduated or left school during the year ended June, 1943. There were 5,145 returns. This study found a median weekly wage of approximately \$27 for all youth of the 1943 group compared with a median of \$14 received by the 1940 group—a fact which suggests the possibility that the 1943 group may have some postwar problems of adjustment to different economic conditions. Approximately four out of every ten boys in this study had entered the armed forces without gaining any experience in full-time employment. They will return older in years and in social development but without experience in peace-time employment.